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ABSTRACT

Evaluated was the use of 12 simulation games with approximately 650 adolescents in 19 corrective schools in Santa Cruz county including ranch schools, juvenile hall schools, drug dependent minor programs, and youth authority facilities. Topics of the simulation games were peer pressure, looking for and keeping a job, mathematics, driving responsibility, finding a place to live, fractions, ego building, use of leisure time, and buying and selling. Evaluation data on each game included the teacher's appraisal of each player's performance, the teacher's appraisal of the simulation, and the student's appraisal of the simulation. Evaluation resulted in positive conclusions regarding the usefulness of the games and specific recommendations as to the most appropriate simulations by type of student and student grade level. Appended are questionnaires and appraisal forms used in the evaluation. (DB)

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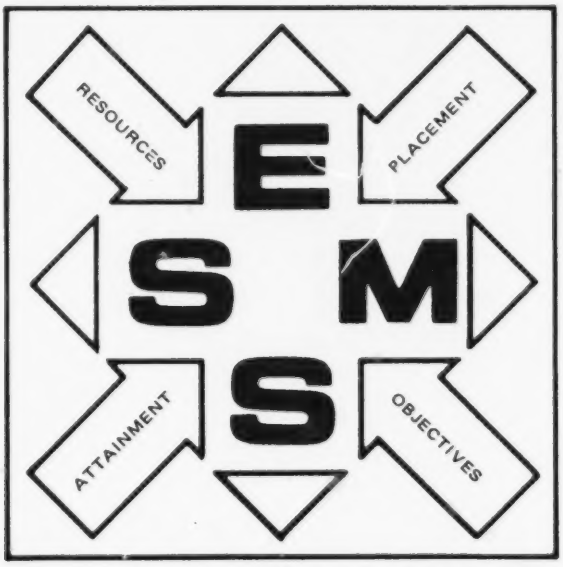

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NEW APPROACHES FOR BEHAVIORALLY EXCEPTIONAL YOUTH

A Project Funded by EHA Title VI-B
44-00000-1423-3-01

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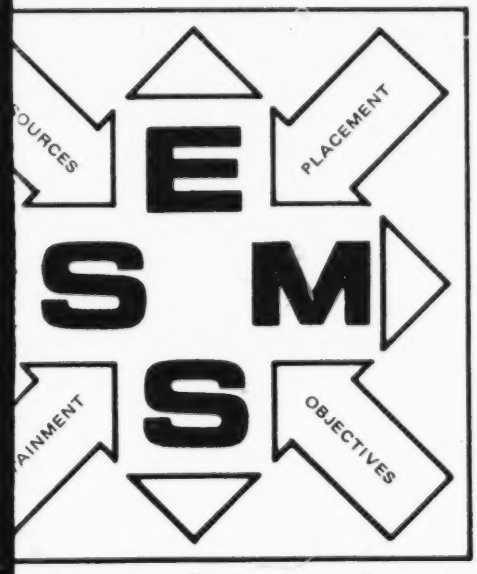

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NEW APPROACHES FOR BEHAVIORALLY EXCEPTIONAL YOUTH

A Project Funded by EHA Title VI-B
44-00000-1423-3-01

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EDUCATIONAL SIMULATIONS

A PROJECT REPORT

EDUCATIONAL SIMULATIONS

A PROJECT REPORT: "NEW APPROACHES TO BEHAVIORALLY EXCEPTIONAL YOUTH"

CONTENTS

Table of Contents		i - iii
Foreword		iv
Preface		v
Acknowledgments		vi - vii
1.0	Project Overview	
	1.1 Funding	1
	1.2 Objectives of the Project	1
	1.3 "Simulation" Defined	2
	1.4 Summary of Activities	2
	1.5 Participating Agencies and Facilities	3
2.0	Project Activities	
	2.1 Project Development	6
	2.2 Selection of Simulation Topics	6
	2.3 Contract for Design and Production of Simulations	8
	2.4 Design and Preliminary Testing of Simulations	9
	2.5 Demonstration of Simulation Use	12
	2.6 Distribution of Simulations for Field Test	13
	2.7 Evaluation Plan	16
	2.8 Problems that Arose	17
	2.9 Simulations Workshop	18

CONTENTS (Cont'd)

Section		Page
3.0	Description of Twelve Simulations Produced	
3.1	Simulation (A) "PEER PRESSURE" (Revised June 1973)	20
3.2	Simulation (B) "GET A JOB" (Revised from "LOOKING FOR AND KEEPING A JOB" June 1973)	22
3.3	Simulation (C) "BIGFOOT" (Revised June 1973)	23
3.4	Simulation (D) "DRIVING"	24
3.5	Simulation (E) "FINDING A PLACE TO LIVE"	25
3.6	Simulation (F) "FRACTURED FRACTIONS"	26
3.7	Simulation (G) "STROKES" (Revised June 1973)	27
3.8	Simulation (H) "BIKE RACING"	28
3.9	Simulation (I) "CONSEQUENCES" (Revised June 1973)	29
3.10	Simulation (J) "WHAT TO DO? WHAT TO DO??"	30
3.11	Simulation (K) "BEST BUY"	31
3.12	Simulation (L) "CANDLE SHOP"	32
4.0	Evaluation Results and Conclusions	
4.1	Evaluation Data Returned	33
4.2	Explanation of Evaluation Data	34
4.3	Summary of Evaluation Data	38
4.4	Conclusions	52
4.5	Recommendations for Use of the Simulations	54

CONTENTS (Cont'd)

Section		Page
Addenda		
Addendum A.	Questionnaire to Participating Facilities	56
Addendum B.	Simulation-Game Topics Rating Form	57
Addendum C.	Summary of Topics Rating	59
Addendum D.	Participants in Simulations Evaluation	60
Addendum E.	Teacher's Appraisal of Each Player's Performance	63
Addendum F.	Teacher's Appraisal of a Specific Simulation	64
Addendum G.	Student's Appraisal of a Specific Simulation	65
Addendum H.	Simulations Workshop Attendance	66

FOREWORD

The Santa Cruz County Office of Education is dedicated to improving ways in which behaviorally exceptional youth can be "turned on" to seeking the benefits of an education. New and different educational experiences are necessary for those youth who, because of aberrant behavior, are required to be detained in juvenile halls, special day classes, or county and state camps and schools. Research has shown that most "acting out", impulsive, asocial, or anti-social youth fail in our regular school programs. In the opinion of many educators, our schools have failed them.

Through the interest and support of selected staff at juvenile halls, camps, Youth Authority facilities, and the pupils and staff of the Santa Cruz County Office of Education's special day classes for drug-dependent minors, a new and most interesting application of simulations or "games" was successfully demonstrated. As the project developed, continuation high schools were included in the research sample.

In general, the Santa Cruz County Office of Education's Sunshine School for drug-dependent minors is providing an educational program that is both attractive to and useful for these youth, and is also creating educational tools (game simulations) and programs that can and should be replicated elsewhere.

DR. RICHARD R. FICKEL, Superintendent
Santa Cruz County Office of Education

June, 1973

PREFACE

This project report and selected simulations were prepared under the direction of Margaret "Peg" Smith, and culminates a three year EHA Title VI-B project designed to develop and maintain a special day class for drug-dependent minors as well as develop appropriate individualized objectives based instructional aids.

The value of simulations or "games" in programs serving behaviorally exceptional youth is amply demonstrated in the Evaluation section of this report. It is hoped that the educational community and publishers of instructional supplies will see the value of simulations as an alternative and supplement to textbooks and other traditional instructional strategies, materials, and activities.

Simulations or "games" can be designed by teachers and pupils and could represent a meaningful class effort. There are few subject areas in a school curricula which would prove to be inappropriate to the use of simulations. Simulations can be designed to be topical, current and easily modified to accommodate changes in important world and local issues on a week to week basis. They lend themselves to reinforcing concepts, skills, and desired behavioral changes. They (games) can be designed to help pupils realize the consequences of their acts or decisions -- they can be useful in developing positive social values.

The Santa Cruz County Office of Education encourages reader response to the contents of this report and the simulations. The use of the materials enclosed is permitted by the public sector. For permission to reprint any part of the report or the simulations prepared by the project staff, please write to Dr. Richard R. Fickel, Superintendent, Santa Cruz County Office of Education.

RICHARD D. STRUCK, Director
Programs for Exceptional Children and Adults
Santa Cruz County Office of Education

June, 1973

ACKNOWLEDGMENTS

Sincere thanks are extended to the following people for their participation in the project, "NEW APPROACHES TO BEHAVIORALLY EXCEPTIONAL YOUTH." Without them the educational simulations could not have been designed, tested, distributed or evaluated.

1. Students and staff of Sunshine School:
   Mr. Jay Lang, Head Teacher
   Ms. Phyllis Silverman, Teacher
   Mrs. Laurie Hancock, Instructional Aide
   Mr. Chuck Carnagey, Instructional Aide
   Mr. Roy Folger, Instructional Aide

2. VORT Corporation, Contractor:
   Mr. Douglas Eidsmore, Designer
   Mr. Marvin Ziegler, Consultant
   Ms. Jerilyn Marks, Graphics Artist

3. Supervisors, teachers and students at the following schools:
   Abraxas High School, Poway, CA
   Ben Lomond Forestry Camp, Santa Cruz, CA
   O.H. Close School, Stockton, CA
   Coronado Continuation High School, Coronado, CA
   CYA Northern Reception Center, Sacramento, CA
   Fallbrook Continuation School, Fallbrook, CA
   Glenwood Boys Ranch, La Honda, CA
   Grossmont Continuation School, Santee, CA

Johnson Intermediate School, Westminster, CA
Karl Holton School, Stockton, CA
Loma Prieta High School, Santa Cruz, CA
Los Pinos High School, Elsinore, CA
Midway Junior Senior High School, San Diego, CA
San Lorenzo Valley Unified School District, Drug Dependent Minor Program, Ben Lomond, CA
Snyder High School, San Diego, CA
Valley High School, Escondido, CA
Ventura School, Camarillo, CA

4. 1972-73 Audit Team:
   Dr. Clifford W. Jordan, Superintendent, Coronado Unified School District
   Mr. Maurice Shaw, Principal, Coronado Continuation High School
   Dr. Eugene Antone, California Drug Education Task Force

5. Santa Cruz County Office of Education Staff:
   Dr. William J. Zachmeier, Assistant Superintendent for Educational Services and Project Director
   Mr. Richard D. Struck, Director of Programs for Exceptional Children and Adults and Project Manager
   Ms. Naomi Bloom, Project Secretary
   Mr. Don E. Anderson, Educational Materials Center

Special thanks to a number of faithful teacher-participants who persevered in their commitment to field test the simulations: Ms. Marie Baker, Ms. Olga Chambers, Mr. Bob Concannon, Ms. Colette Von Deuring, Mr. Jim Flood, Mr. Andy Hau, and Mr. Jules Unteidt; to Mr. John Acuna for his extensive and detailed reporting, and to Ms. Jenne Gray for her prompt return of data after entering the project in May, 1973.

NEW APPROACHES TO BEHAVIORALLY EXCEPTIONAL YOUTH

EDUCATIONAL SIMULATIONS

1.0 PROJECT OVERVIEW

1.1 Fundin

The project, "NEW APPROACHES TO BEHAVIORALLY EXCEPTIONAL YOUTH," was funded by E.H.A. Title VI-B for 1972-73 to meet two major objectives:

1.2 Objectives of the Project

1.2.1 "Operate the Santa Cruz County Remedial Program for Drug Dependent Minors at Sunshine School, to locate, rehabilitate and remediate deficiencies and return these students to regular school programs or constructive community involvement."

1.2.2 "Design, distribute, and evaluate 16 educational simulations in county ranch schools, juvenile hall schools, drug dependent minor programs and Youth Authority facilities."

The project rationale states: "The intent of the simulation design component is to design a product which is appropriate and useful and which will actually be distributed and used in varicus institutions serving delinquent, detained and drug dependent minors."

1.3 "Simulation" Defined

A simulation is defined in the project rationale as "an analytical model of reality or fantasy, ... a self-contained role playing model that is designed to attain specified learning objectives. Simulations may be competitive or cooperative, or players may play alone. Educational simulations encompass the cognitive and affective domains."

1.4 Summary of Activities

Sunshine School, referred to in Objective 1.2.1 stated above, has been partially funded by Title VI-B for two years, 1970-71 and 1971-72. Its history and program are the subject of a detailed report entitled NEWDAY OPERATIONS GUIDE FOR DRUG DEPENDENT MINORS, produced and distributed by the Santa Cruz County Office of Education, Richard R. Fickel, Superintendent, 701 Ocean Street, Room 200, Santa Cruz, California 95060.

This report will deal exclusively with the second objective of the project -- the design, distribution and evaluation of sixteen educational simulations to provide workable strategies for the education of young people with characteristics similar to those of drug dependent minors. The special educational needs of students in juvenile halls, county ranches, California Youth Authority facilities, as well as in two schools for drug dependent minors, were the focus of the educational simulations. Administrators and instructors in such facilities were interviewed to establish goals relating to special student needs. Topics for the simulations were selected by means of a questionnaire sent to participating facilities. Simulations were then designed on the topics rated highest in priority of need. They were tested initially at Sunshine School, redesigned and produced by a private contractor, then distributed and evaluated by the Santa Cruz County Office of Education project staff on the basis of feedback from participating teachers throughout the state.

In February the project objective was changed to provide for producing and field-testing twelve simulations rather than sixteen. Five of them were selected for reproduction in sufficient numbers (500 copies) to be distributed to all the participants and to other interested educators and agencies.

During the course of the project it became apparent that the teachers who were committed to trying out and reporting their students' performance on the simulations would not have time to present and appraise 16 different simulations. It was for this reason that the total number of simulations was reduced to twelve, five of which were to be refined and reproduced in sufficient quantity and quality for wide distribution.

A limited number of copies of the first twelve field-tested simulations which were used and evaluated during the project year are obtainable from the Santa Cruz County Office of Education, Richard D. Struck, Director of Programs for Exceptional Children and Adults, 701 Ocean Street, Room 200, Santa Cruz, California 95060.

1.5 Participating Agencies and Facilities

During the project planning period in June 1972, supervisorial personnel of California Youth Authority and other correctional facilities were interviewed by the project staff for information regarding their interest in the use of simulations and the specific educational needs of their students. In addition, programs for drug dependent minors and juvenile halls were included. The following is a list of the facilities contacted and the staff members who expressed oral commitment to participating in the project at that time:

Facility	Contact
Santa Cruz County Office of Education Juvenile Hall School	Bob Hartman, Teacher
Ben Lomond Youth Conservation Camp Empire Grade, Santa Cruz, CA	Mr. White, Supervisor Phyllis Ramsthaler, Teacher
Glenwood Boys Ranch La Honda, CA	Doug Booth, Principal
Northern Reception Center, C.Y.A. Sacramento, CA	Carl Andre, Supervisor of Academic Instruction
Karl Holton CYA School Stockton, CA	Mr. Wm. J. De Risi (now transferred) Mr. Gordon Spencer, Superintendent of Instruction
O.H. Close School Northern California Youth Center Stockton, CA	Ernest Bodt, Superintendent of Instruction
Ventura School Camarillo, CA	Mr. Arnold, Superintendent of Instruction
Los Pinos High School Elsinore, CA	Mike Kilborn, Acting Principal John Acuna, Teacher
Santa Cruz County Special Day Class for Drug Dependent Minors Sunshine School	Jay Lang, Head Teacher

As the project continued, teachers at other schools asked to participate in field testing the simulations and did so. Their students were not in regular school programs, were not delinquent or detained, and were mostly in continuation high schools. These additional students provided a useful comparison to the detained and delinquent population (see page 5).

Facility	Contact
San Lorenzo Valley Unified School District Drug Dependent Minor Program Ben Lomond, CA	Candy Love, Teacher
Johnson Intermediate School Westminster, CA	Linda Harshbarger, Counselor Jules Unteidt, Teacher
Coronado Continuation High School Coronado, CA	Maurice Shaw, Principal Bob Concannon, Teacher
Loma Prieta High School Santa Cruz, CA	Charles Smith, Principal Betty Nash, Teacher
Abraxas High School Poway, CA	Pat Yavno, Teacher
Valley High School Escondido, CA	Donna Hutchinson, Teacher
Grossmont Continuation School Santee, CA	E.A. Walker, Teacher
Snyder High School San Diego, CA	Ross Warfel, Teacher
Midway Junior Senior High School San Diego, CA	Bev Walter, Teacher
Fallbrook Continuation School Fallbrook, CA	Ken Anderson, Teacher

(For a complete list of teachers who participated in the use and appraisal of the simulations, see Addendum D.)

2.0 PROJECT ACTIVITIES

2.1 Project Development

The simulations project was initiated by Dick Struck, Director of the Santa Cruz County Office of Education Drug Dependent Minor project for 1970-71 and 1971-72. Instructional materials and methods appropriate to drug dependent and other behaviorally exceptional students were identified during those years.

As a result of this, the project for 1972-73 was written to include two major components: continued operation of the Santa Cruz County Remedial Program for Drug Dependent Minors at Sunshine School, and the design, distribution and evaluation of educational simulations in county ranch schools, juvenile hall schools, drug dependent minor programs and California Youth Authority facilities. The project was approved by Title VI-B with an additional mini-grant for detailed planning. Consultants Marvin Ziegler, Charles Hall and Peg Smith were employed for a short period of intensive planning and initial contacts with correctional facilities (See Section 1.5).

2.2 Selection of Simulation Topics

During that planning period it became evident that the project staff should begin work on the program two weeks prior to the school year for the purpose of gathering information from agencies who would participate in simulations evaluation.

In September 1972, educational supervisors within each facility contacted responded to a questionnaire asking for the names and number of teachers who would participate in simu-

lations evaluation and their choice of topics on which simulations would be designed.

The Questionnaire, the Simulations-Game Topics Rating Form, and the Summary of Topics-Rating are included in Addenda A, B, and C. The topics rated "most appropriate to student needs" by a majority of the eight respondents were in the order of priority: "Peer Pressure," "Getting a Job," "Ego-building and self-worth," "Renting a Pad," "Drug Use and Abuse," "Return to Family," "Flat Broke -- Time but no Money," "Getting Your Head Together," "Driver Responsibility," "V.D. Prevention and Care." Several respondents added a request for arithmetic and reading skill building. It had been previously determined by project staff that the simulations would cover four general areas: life skills, remedial mathematics and reading, vocational orientation, and use of leisure time.

"PEER PRESSURE" and "LOOKING FOR AND KEEPING A JOB" were produced first and distributed early in November. "BIGFOOT," which stresses math, and "DRIVING" were distributed in mid-November. In January, four simulations, "FINDING A PLACE TO LIVE," "FRACTURED FRACTIONS" (a math game), "STROKES" (ego-building) and "BIKE RACING" (stressing multiplication of fractions) were distributed.

Although simulation topics pertaining to recreation and use of leisure time were rated "most appropriate" by less than half of the respondents, two simulations of this type were produced, entitled "CONSEQUENCES" and "WHAT TO DO? WHAT TO DO??". These two simulations, and two others, "BEST BUY" and "CANDLE SHOP," pertaining to buying and selling, were distributed in March 1973.

Medium priority topics for which simulations were not designed were "Return to Family," "Getting Your Head Together," and "VD Prevention and Care." These topics were eliminated when the project objective of producing 16 simulations was changed to producing 12 and refining four of those 12. (Ultimately, we were able to refine five rather than four simulations for dissemination to interested educators.)

2.3 Contract for Design and Production of the Simulations

On October 4, 1972, a contract was drawn between the Santa Cruz County Office of Education and VORT Corporation (Values, Objectives, Resources, Time) of 7037 Banff Springs Court, San Jose, California, for the design and production of sixteen simulations, complete with instructions and materials, in sufficient quantities to be played simultaneously by 400 players. The simulations were to be delivered according to specified delivery dates to enable distribution to the participating facilities for field testing by 400 students.

Although the project objectives were altered in February to call for testing by 200 students rather than 400, the contract remained the same in this regard. VORT Corporation continued to produce copies of the simulations sufficient for 400 players. Fifty copies of each simulation (sufficient for 200 players on the basis of four players per simulation) were reserved by the County Office of Education for distribution to audit team members, Simulations Workshop attendants, and new participants in the simulations evaluation project. Of these fifty copies, approximately thirty copies of each of six simulations, (G) through (L), remain for distribution on request.

After twelve experimental simulations were produced and distributed, it became apparent that the whole process of field testing by students and teachers, and the return of

appraisal sheets to Santa Cruz County for a complete evaluation of simulations, were more time consuming than was anticipated in the project proposal.

A revised contract was therefore signed on May 17, 1973, to provide for redesign of five simulations: (A) "PEER PRESSURE," (B) "LOOKING FOR AND KEEPING A JOB" (revised as "GET A JOB"), (C) "BIGFOOT," (G) "STROKES," and (I) "CONSEQUENCES." Under the revised contract, VORT provided design and graphics, County Office of Education provided secretarial work, printing and materials.

Through this revision it was possible to produce 500 copies of each of five simulations on larger, more durable, and more attractive gameboards, complete with markers, dice and chips, rather than the less expensive experimental boards and markers. The redesigned simulations are not necessarily the best of all twelve original simulations, but are those which feedback from participants' appraisals suggested would benefit most from larger gameboards or revised strategies.

The contract revision involved a change in project direction which made possible the dissemination of 500 copies of five tested and improved educational simulations to interested educators as a result of the succesful operation of this Title VI-B project.

2.4 Design and Preliminary Testing of Simulations

2.4.1 The simulations were designed to focus on areas of need in students' lives, such as academic skills, buying skills, vocational orientation, or constructive use

of leisure time; that were designed also to comply with the priority of needs selected by the participants. Strategies within each simulation were designed to meet specific objectives, stated in the instructions for each simulation. These in turn were derived from an assessment of needs attributed to students in programs for detained, delinquent or drug dependent minors. The project objectives described such students as having "a history of failure in regular schools, with short attention spans, averaging over two grade years deficiency in reading and math, typically an unstable and non-supportive home situation." Pertinent needs which the simulations were designed to meet were defined in the project application, with no specific priority, as follows:

- The need to start, attend to, and complete a series of tasks.
- The need to develop problem solving skills,
- The need to develop skills in goal setting and attainment.
- The need to improve decision making skills in a variety of domains pertinent to the target population, such as vocations, life skills, and recreation.
- The need to improve cooperative skills including following directions and obeying rules.
- The need to effectively practice reading skills as a vital part of the program to remediate reading skill deficiencies averaging two grade years among this population.
- The need to effectively practice the use of mathematics skills by the target population as a vital part of the program to remediate mathematics skills deficiencies averaging over two grade years among these youngsters.
- The need to learn relevant information concerning vocations, lifeskills, and recreational opportunities.

2.4.2 In the process of design, each simulation was pre-tested by the designer at Sunshine School. Designer Doug Eidsmore tested each of the first twelve simulations by instructing and supervising Sunshine School students in playing each game on a hand-made gameboard, cards and worksheets. The project coordinator observed the students playing the simulation or played the simulation game with the students. Students were asked their opinions of each simulation; they sometimes made constructive suggestions for improvements, sometimes reported dislike for certain aspects of the game. Players' interest in, attention to, and comprehension of rules of play was noted.

During pre-testing of each simulation at Sunshine School, the student players appeared at all times to be frank in their comments. When they showed negative reactions, the designer returned to the drawing board to improve, refine and, in two cases, entirely redesign the simulation. In the latter cases, each simulation was presented again to students and coordinator for play and criticism.

Two unforeseen factors may have favorably influenced student acceptance of the simulations during preliminary testing. Rules of play had not been written down when students tested each game initially; therefore the designer simply told the students how to play the game. This prevented our evaluating the rules of play (which were subsequently written by the designer) with respect to how difficult they would be for participating teachers to understand.

The presence of the designer and the coordinator while the game was being tested may have contributed to the students' enthusiasm for some of the simulations tested. The adults' presence, however, certainly did not keep the students from rejecting two of the games presented by the designer as described above.

Simulations design was on-going. All feedback from participants was considered by the coordinator and incorporated into recommendations to the designer. By this process the pre and post-tests were improved; presentation of each simulation was reduced to simply "two hours playing time" rather than a five-day presentation period; rules of play were clarified and simplified. Interfering with immediate change in game design or procedure was the fact that simulation design was far ahead of simulation evaluation. Therefore, several simulations were distributed before any change based on feedback from participants was evident. Feedback from participants was influential in the redesign of five of the first twelve simulations (A through L).

2.5 Demonstration of Simulation Use

To assist participating teachers in introducing simulations to their students, the project coordinator made two visits (in November of 1972 and January of 1973) to each facility and demonstrated to teachers or to students while teachers observed. As many as twelve students were taught to play "PEER PRESSURE," Simulation (A), at one time, while the teacher observed. This type of demonstration was given for each of three classes at C.Y.A. Northern Reception Center, in one class at C.Y.A. Ventura School, at Camp Glenwood for Boys in San Mateo County, at Santa Cruz County Juvenile Hall School, and at Ben Lomond Youth Forestry Camp. A demonstration to teachers (who became the players) was given for O.H. Close and Karl Holton Schools of C.Y.A. and Los Pinos Juvenile Forestry Camp in Orange County.

Two schools, Coronado Continuation High School and Johnson Intermediate School in Westminster, which joined the project after the initial round of visits, introduced the simulations successfully to students without any demonstration by the coordinator.

In May 1973, teachers from six continuation high schools asked to participate in the project after having seen some of the simulations at a workshop held by Maurice Shaw, Principal, and Bob Concannon, teacher, at Coronado Continuation High School. On May 18, 1973, these teachers and the coordinator played Simulation J, "WHAT TO DO? WHAT TO DO??" at Coronado Continuation and discussed simulations (G) through (L). Copies of these simulations were distributed to nine teachers, who planned to test some of them immediately. At this demonstration the teachers showed an interest in using the simulations in their programs next year and expressed various simple plans for adapting the math to their more advanced students.

2.6 Simulations Distribution for Field Test

The number of teachers initially committed to evaluating simulations was 20.

The number of student players initially committed to evaluating simulations was 400.

The number of student players for whom simulations materials and appraisal forms were distributed was 400. (Simulations A and C were designed for three players; B, D, E and F were designed for two players each. All six simulations were distributed in sufficient quantities for 400 players.)

Simulations G, H, I, J, K, and L were designed for four players each and were distributed in sufficient numbers for 200 players. Therefore the number of copies of each simulation distributed varied as the project progressed.

NUMBER OF STUDENT PLAYERS FOR WHOM COPIES OF EACH SIMULATION WERE DISTRIBUTED

SCHOOL	SIMULATION											
	A	B	C	D	E	F	G	H	I	J	K	L
O.H. Close	90	90	90	90	90	90	32	32	32	32	32	32
Karl Holton	21	22	22	21	20	20	20	20	20	20	20	20
CYA Northern Reception Ctr.	60	60	60	60	60	60	12	12	12	12	12	12
Ventura	107	107	105	105	75	75	28	28	28	28	28	28
Los Pinos	18	18	18	18	18	18	8	8	8	8	8	8
S.C. Juvenile Hall	12	12	12	12	12	12	8	8	8	8	8	8
Camp Glenwood	21	22	22	21	22	22	8	8	8	8	8	8
Ben Lomond Camp	30	30	30	30	10	10						
Coronado Continuation	9		6	6	6	6	12	12	12	12	12	12
Sunshine School	12	6	6	6	6	6	8	8	8	8	8	8
Johnson Intermediate	36	36	36	36	36	36	36	36	36	36	36	36
San Lorenzo Valley		6	6	6	6	6	8	8	8	8	8	8
Loma Prieta	16	2		6			16	8	4	4	4	
Abraxas				12			24	12	32	32	24	32
Midway				12			8	8		8		
Snyder							8	8	8	8		8
Grossmont							8	8	8	8		
Valley									8	8	8	8
Fallbrook									8	8	8	8

NUMBER OF STUDENT PLAYERS FOR WHOM EVALUATION DATA WAS RECEIVED

SCHOOL	SIMULATION											
	A	B	C	D	E	F	G	H	I	J	K	L
O.H. Close	35	16	9	10	10	10	8	10	7	8	8	
Karl Holton												
CYA Northern Reception Ctr.	33								6	5		3
Ventura	34	12	10	6	4	3						
Los Pinos	18	16		16	14							
S.C. Juvenile Hall	6	6	8	8		6	4	4				4
Camp Glenwood	6											
Ben Lomond Camp	11											
Coronado Continuation	4		12		6	5	8	11	8	4	8	8
Sunshine School	9	4		8			12	3	4	5	5	
Johnson Intermediate	3		20			24	22	21				
San Lorenzo Valley		8		8								
Loma Prieta		2										
Abraxas							8	4	4		4	
Midway												
Snyder												
Grossmont								4	4			
Valley												
Fallbrook												
Totals	159	64	59	56	34	48	62	57	33	27	25	15

2.7 Evaluation Plan

Evaluation and summary of results of simulations used in C.Y.A. facilities, ranches and juvenile hall schools were a major activity of the Educational Simulations component of the project "NEW APPROACHES TO BEHAVIORALLY EXCEPTIONAL YOUTH."

During the project pre-planning period in June 1972, a simulations evaluation plan was established to assess the effectiveness of the simulations in three areas:

1) Were the students attentive to the simulation to the extent of meeting the learner objectives of each simulation?
2) Were the simulations accepted by teachers as a useful teaching tool?
3) Did the simulations transmit information to players?

To collect data pertinent to the first two areas to be assesed, three separate color-coded forms were designed:

A pink form for "Teacher's Appraisal of Each Simulation"
A yellow form for "Teacher's Appraisal of Each Student's Performance"
A blue form for "Student's Appraisal of Each Simulation"
(See Addenda E, F, G.)

To measure information transmitted by the simulation, pre-tests and post-tests were designed by Douglas Eidsmore and included in each packet of simulation instructions. Each set of pre and post-tests consisted of eight to ten questions pertaining to information presented in the simulation.

When the simulations were distributed to teachers, appraisal sheets were included in each game packet. Teachers were asked to fill out and return the appraisal sheets after playing each simulation. Each student player also was asked to fill out an appraisal sheet for each simulation.

All appraisal sheets and pre and post-test scores were tallied for final evaluation in June 1973. Additional comments which appear on any of the three appraisal forms were also recorded.

2.8 Problems That Arose

2.8.1 Fulfilling the project plan to "test each simulation on 400 students" became an impossible task within the constraints of the project coordinator's time to set up programs at new facilities, and the teachers' time available to direct as many students in the use of each simulation as was initially anticipated. On January 15, 1973, permission was obtained from the Title VI-B consultant in Sacramento to reduce the number of students involved in the project evaluation of each simulation from 400 to 200 students.

Even after the reduction in scope of the field testing, it was necessary to locate 36 new student participants to replace those lost through reorganization in C.Y.A. schools and other changes in teachers' schedules.

2.8.2 It also became apparent that the teachers who agreed to participate in the simulations evaluation project were not able to use them as fast as was anticipated. Therefore, the receipt of appraisal forms was greatly delayed.

In some schools, especially the C.Y.A. schools, internal reorganization made it impossible for some teachers to use the simulations at the rate they anticipated.

Because the participating teachers would not have time to test all 16 simulations and return appraisal sheets within the project period, the project objective was modified to provide for testing only twelve simulations designed, produced and distributed as of March 1973. The remaining time and money would be used to improve the quality of five of the original twelve simulations and make them available to interested educators. This was accomplished through a revised contract with VORT Corporation and the project staff undertaking responsibilities for printing and purchasing of materials. (See Section 2.2, Contract between County Office of Education and VORT Corporation.)

2.9 The project called for a demonstration of the use of educational simulations for the benefit of the participants. Since the project coordinator had already conducted demonstrations for teachers in all but two of the participating facilities (Johnson Intermediate School and Coronado Continuation High School, whose principal, Maurice Shaw, was experienced in using and designing educational simulations), a Workshop was planned for the participating teachers to review their experiences, share innovative ideas for use of the experimental simulations and learn about other types of educational simulations.

This was accomplished. On March 13, 1973, 20 people attended a workshop in Santa Cruz. Audit Team member Maurice Shaw heard the participants discuss their reactions to the experimental simulations. Mr. Shaw described his successful involvement of students in designing their own simulations of historical events. Carol Goodell, gaming consultant from Real World Learning, Inc., 134 Sunnydale Avenue, San Carlos, California, presented

an exciting interaction simulation in which the twenty participants and nine students from Sunshine School were completely involved. Mrs. Goodell also gave a brief preview of a means of modifying a standard Monopoly game to a simulation about city planning and land use. (See Addendum H. Workshop Participants.)

Oral feedback from the participants who had field tested the simulations was used by designer Douglas Eidsmore and project staff to select and improve five simulations.

3.0 DESCRIPTION OF THE TWELVE SIMULATIONS PRODUCED

3.1 Simulation (A) "PEER PRESSURE" Revised June 1973

3.1.1 Strategy:

The educational simulation "PEER PRESSURE" is designed to present a variety of situations in which players apply peer pressure and develop defenses against such pressure. Peer pressure may be defined as the influence of one or more members of a group upon other members of that group. It is hoped that students who play the simulation will later recognize when they are being pressured and when they are applying pressure in real-life situations.

Players roll the dice and move their markers on a path around the gameboard. Situations in which young people might be pressured to perform various acts are described in the spaces on the gameboard path. A player whose marker lands on one of these spaces is pressured by another player to perform the act described in the space. The pressure is applied by using "pressure cards." The player being pressured defends himself by selecting appropriate "defense cards." Players receive positive points if they withstand pressure and negative points if they yield to pressure. The emphasis is on building strong defenses against peer pressure in real life.

3.1.2 Learner objectives for "PEER PRESSURE" are as follows:

To start, attend to, and complete the educational simulation activity; to compute at least 25 addition and subtraction problems involving two-place numbers; to read

at least 80 short statements that appear on the game cards and gameboard; to follow the educational simulation instructions given by the classroom teacher or as read in the Rules of Play.

3.1.3 Suggestions for follow-up activities are included in the revised sets of "PEER PRESSURE."

3.2 Simulation (B) "GET A JOB" Revised from "LOOKING FOR AND KEEPING A JOB" June 1973

3.2.1 Strategy:

The educational simulation "GET A JOB" is designed to expose players to the activities and behaviors required to find and keep a job. Players move their markers in three arrays. In the first array, they attempt to move to spaces which allow them to find out about job openings, and then fill out a job application.

In the second array they attempt to move to spaces that are examples of creating a good impression so that they may be interviewed. Players use lists of questions to interview each other. If a player passes the interview, he goes to the third array. Here he tries to keep his job by moving to spaces that are examples of doing a good job. Players reveive points for moving to positive spaces. Players may also be fired or laid off and must then seek a new job. The player who simulates the most positive behaviors is the winner.

3.2.2 Learner objectives for "GET A JOB" are as follows:

To start, attend to and complete the educational simulation activity; to fill out a sample application for employment and read another player's application; to role play being interviewed and interviewing another player at least four times, using a list of interview questions as a guide; to complete sub-tasks, such as reading cards, that lead to the attainment of the goal of getting a job; to make decisions that will lead to the achievement of the goals of getting and keeping a job; to correctly follow the educational simulation instructions given by the classroom teacher.

3.3 Simulation (C) "BIGFOOT" Revised June 1973

3.3.1 Strategy:

The educational simulation "BIGFOOT" is designed to provide players with practice in multiplying integers, fractions and decimals.

Players assume roles of members of an organized search for "Bigfoot," a large, two-legged mammal that is alleged to inhabit the western United States. The players attempt to obtain photographs of Bigfoot as they simulate the search on a gameboard.

3.3.2 Learner objectives for "BIGFOOT" are as follows:

To start, attend to and complete the educational simulation activity; to read the one-page newspaper story about Bigfoot; to correctly solve at least ten multiplication problems; to correctly solve at least fifteen addition problems; to make decisions and complete tasks that lead to the attainment of the goal of winning the game.

"BIGFOOT" in its original form was especially well received in continuation high schools, but it was difficult for C.Y.A. students. The revised form provides a choice of three math levels.

3.4 Simulation (D) "DRIVING"

3.4.1 Strategy:

The educational simulation "DRIVING" is designed to present basic information about driver responsibility. Players are given this information on printed sheets. Players roll dice and move their markers through alternate routes on a gameboard. A question and answer exchange occurs when players land on certain spaces. Players choose a question from a list and an opposing player must attempt to correctly respond to the question. Information pertaining to each question is on the printed sheets. Players are rewarded for correctly answering each question.

3.4.2 Learner objectives for "DRIVING" are as follows:

To start, attend to and complete the educational simulation activity; to read each of the four types of fact sheets; to read at least 15 questions from the lists of questions; to respond to at least eight questions taken from the list of questions; to complete sub-tasks, such as answering questions correctly that lead to completing the simulation; to make decisions as demonstrated by choosing alternate routes on the gameboard and choosing questions that will lead to the attainment of the goal of winning the game; to correctly follow the educational simulation instructions.

Although "to change attitudes" of the players is not included as a measurable learner objective for this simulation, teachers can use the simulation to motivate a discussion of attitudes about driver responsibility.

3.5 Simulation (E) "FINDING A PLACE TO LIVE"

3.5.1 Strategy:

The educational simulation "FINDING A PLACE TO LIVE" is designed to expose players to a variety of living alternatives and costs, as well as to some tasks useful in finding a place to live.

Play takes place on a gameboard which contains a map of a fictitious city. Players move their markers to various areas of the city in order to find suitable living places for people with a variety of living requirements.

3.5.2 Learner objectives for "FINDING A PLACE TO LIVE" are as follows:

To start, attend to and complete the educational simulation activity; to read and comprehend the one-page summary of the rules, and to read and comprehend 60 descriptive statements contained on "People Cards," "Place Cards," and "Places to Rent" sheets; to compute on the Student Score Sheet addition problems using two- and three-digit numbers; to appraise the information printed on cards and work sheets and make decisions to find places for people to live by attempting to match peoples' needs to appropriate rentals.

3.5.3 A class at Camp Glenwood, La Honda, California, plans to construct another gameboard simulating their own neighborhood and major city.

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Play takes place on a gameboard which contains a map of a fictitious city. Players move their markers to various areas of the city in order to find suitable living places for people with a variety of living requirements.

3.5.2 Learner objectives for "FINDING A PLACE TO LIVE" are as follows:

To start, attend to and complete the educational simulation activity; to read and comprehend the one-page summary of the rules, and to read and comprehend 60 descriptive statements contained on "People Cards," "Place Cards," and "Places to Rent" sheets; to compute on the Student Score Sheet addition problems using two- and three-digit numbers; to appraise the information printed on cards and work sheets and make decisions to find places for people to live by attempting to match peoples' needs to appropriate rentals.

3.5.3 A class at Camp Glenwood, La Honda, California, plans to construct another gameboard simulating their own neighborhood and major city.

3.6 Simulation (F) "FRACTURED FRACTIONS"

3.6.1 Strategy:

The educational game "FRACTURED FRACTIONS" is designed to provide players with practice in adding fractions. Players create addition problems using cards. Two types of cards are used: "Numeral" cards and "L.C.D." cards. "Numeral" cards are used to form the addition problems. Players must have an appropriate "L.C.D." (Lowest Common Denominator) card to solve the addition problem. Players receive points for each problem solved.

3.6.2 Learner objectives for "FRACTURED FRACTIONS" are as follows:

To start, attend to and complete the educational game activity; to correctly name the sum of two fractions at least ten times and to compute the sums of these problems to obtain the goal, i.e. score; to make decisions that will lead to the attainment of the goal of winning the game as demonstrated by the player arranging his cards and drawing new ones in an attempt to create addition problems.

Teachers and students can make cards to devise fraction problems and compute lowest common denominator of their choice.

3.7 Simulation (G) "STROKES" Revised June 1973

3.7.1 Strategy:

The educational simulation "STROKES" is designed to provide players with practice in giving and receiving strokes for positive and negative behaviors.

Players cooperate in moving their markers around the path on a gameboard. The game is played in teams of two with partners giving each other "warm strokes" and "cold strokes" which are contained on game cards.

3.7.2 Learner objectives for "STROKES" are as follows:

To start, attend to and complete the educational simulation activity; to read at least 30 statements printed on the gameboard and game cards; to give an appropriate stroke (warm or cold) to his partner at least ten times; to complete appropriately at least one of the tasks required by the "Mellow" cards; to make decisions and complete tasks that lead to the attainment of the goal of winning the game.

3.7.3 Suggestions for discussion and application of "stroking" in the classroom are included in the revised "STROKES."

3.8 Simulation (H) "BIKE RACING"

3.8.1 Strategy:

The educational simulation "BIKE RACING" is designed to provide players with practice in multiplying fractions. Players move their markers along a bike racing course, solving fractional miltiplication problems using fractions contained on cards. The answers to the multiplication problems each player creates correspond to the distance that he may move his marker along the bike racing course. Players, therefore, attempt to create multiplication problems that yield the largest products. The winner is the first player to move his marker across the finish line.

3.8.2 Learner objectives for "BIKE RACING" are as follows:

To start, attend to and complete the educational simulation activity; to correctly name the product of two fractions at least 20 times; to make decisions and complete tasks that lead to the attainment of the goal of winning the game.

3.9 Simulation (I) "CONSEQUENCES" Revised June 1973

3.9.1 Strategy:

The educational simulation "CONSEQUENCES" is designed to confront players with choices between positive, wholesome behaviors and negative, self-indulgent behaviors.

These behaviors are described on several paths on the gameboard. The negative behaviors are grouped into three categories: those that could send a person to the hospital, to a drug clinic or to jail. As players move their markers along the paths, they are rewarded with points for choosing positive behaviors and suffer logical consequences for choosing negative behaviors.

3.9.2 Learner objectives for "CONSEQUENCES" are as follows:

To start, attend to and complete the educational simulation activity; to read at least 30 statements printed on the gameboard; to choose positive behaviors over negative behaviors as printed on the gameboard; to make decisions and complete tasks that lead to the attainment of the goal of winning the simulation.

3.10 Simulation (J) "WHAT TO DO? WHAT TO DO??"

3.10.1 Strategy:

The educational simulation "WHAT TO DO? WHAT TO DO??" is designed to expose players to numerous leisure time activities that are available to young people living in most cities. Activities are described on a deck of 48 cards. Players move their markers on a gameboard containing a city map. They use a die in moving their markers to various places, such as: theaters, ball parks, stores, etc. Players receive points for performing each of these activities.

3.10.2 Learner objectives for "WHAT TO DO? WHAT TO DO??" are as follows:

To start, attend to and complete the educational simulation activity; to read at least 40 statements printed on the game cards; to make decisions and complete tasks that lead to the attainment of the goal of winning the game.

3.10.3 Students might like to design a gameboard map to simulate the leisure time opportunities in their neighborhood or town. Ascribing points to each leisure time activity can lead to beneficial discussions of personal and group values.

3.11 Simulation (K) "BEST BUY"

3.11.1 Strategy:

The educational simulation "BEST BUY" is designed to provide players with the experience of choosing products for purchase and then determining the cost of maintaining those products over a three-year period. Concepts such as repair bills, warranties and finance charges are included in the simulation.

3.11.2 Learner objectives for "BEST BUY" are as follows:

To start, attend to and complete the educational simulation activity; to read at least 20 statements printed on the gameboard and to read at least three of the large game cards; to describe orally to other players three of the products described in print on the large game cards; to make decisions and complete tasks that lead to the attainment of the goal of winning the simulation.

3.12 Simulation (L) "CANDLE SHOP"

3.12.1 Strategy:

The educational simulation "CANDLE SHOP" is designed to provide players with the experience of making basic decisions and performing basic tasks required in operating a small business. Each player assumes the role of a candle shop owner. Players must purchase candles at fluctuating wholesale prices, decide on the size of their inventories of candles, and meet basic expenses -- such as rent and taxes. The winner is the player who makes the most money.

3.12.2 Learner objectives for "CANDLE SHOP" are as follows:

To start, attend to and complete the educational simulation activity; to correctly record his expenses and income as the simulation is played; to correctly solve at least ten addition or subtraction problems; to make decisions and complete tasks that lead to the attainment of the goal of winning the simulation.

4.0 EVALUATION RESULTS AND CONCLUSIONS

4.1 Evaluation Data Returned

The number of players for whom evaluation data was returned is shown in the chart on page 15.

The total number of teachers and students who used the simulations remains undetermined due to the fact that many appraisal sheets and pre and post-tests were not returned by the end of the project evaluation period.

Factors which may have affected the low number of responses compared to the total number of copies of each simulation distributed are as follows:

4.1.1 Sufficient copies of each simulation were distributed to teachers on the basis of their maximum estimate of the number of their students who would field test each simulation. Teachers and project staff soon learned that most teachers did not have time to, or did not take time to, learn the rules of each new simulation, present it, appraise it and return the appraisal sheets and pre and post-tests.

4.1.2 Some teachers found it difficult to incorporate the wide range of simulation topics into their programs due to conflicting pre-assigned curricula.

4.1.3 Some facilities which had been expected to test simulations on many students were subjected to agency re-organization which eliminated or greatly reduced the opportunity for field testing.

4.1.4 Return of evaluation data through the mail was slower than responding teachers anticipated, causing some responses to arrive after compilation of the data.

4.2 Explanation of Evaluation Data

Evaluation of the simulations is based on data derived from the appraisal sheets filled out by teachers and students and pre-test and post-test scores returned by June 15, 1973.

4.2.1 Criterion #1: Were the students attentive to the simulation to the extent of meeting all the learner objectives?

Criterion Measure "A": "Teacher's Appraisal of Each Student's Performance": (See Addendum E.)
The items in Criterion Measure "A" pertain to and include the accomplishment of learner objectives for each simulation. (Learner objectives for each simulation are stated in each Manual of Instructions, and in Section 3.0 of this report.) For example, learner objectives for "PEER PRESSURE" are: "To start, attend to and complete the educational simulation activity; to compute at least 25 addition and subtraction problems involving two-place numbers; to read at least 80 short statements that appear on the game cards and gameboard; and to follow the educational simulation instructions given by the classroom teacher or as read in the Rules of Play."

If the teacher, after observing students playing "PEER PRESSURE," marks questions #4, #7, #9, and #10 with a plus under column A, it indicates that player A has met

the learner objectives. If those items are marked "minus" in column A, it indicates that learner objectives were not met by player A.

Questions #3, #5, #6, and #8 reveal additional facts about each player's performance. For example, if #6 and #7 are both marked "minus," it means that the player "did not appear to understand the directions" and "did not follow directions." If #6 is marked with a plus and #7 is marked with a minus, we know that the player "appeared to understand directions" but "did not follow instructions." The latter case indicates a possibility that the simulation game was not sufficiently interesting or motivating for that player.

In the case of "PEER PRESSURE," the chart below indicates the number of responses received, the number of positive answers, the number of negative answers, and the percentage of positive answers to each item on Criterion Measure A, "Teacher's Appraisal of Each Student's Performance":

ITEM	TOTAL RESPONSES	# POSITIVE RESPONSES	# NEGATIVE RESPONSES	% POSITIVE
4.	150	128	22	85%

The above indicates that, of 150 answers to the question "Did he attend to the game all period?", 128 players did attend to the game all period, and 22 players did not attend to the game all period. Therefore, 85 per cent of the total players observed did indeed attend all period to Simulation (A), "PEER PRESSURE."

4.2.2 Criterion #2: Were the simulations accepted by the teacher as a useful teaching tool?

Criterion Measure "B": "Teacher's Appraisal of a Specific Simulation" (See Addendum F): Five questions (Items #3 through #7) were answered on each pink form by each teacher. Comments were invited and tallied as Item #8. In the case of "PEER PRESSURE," Item #3 indicates that, of the 35 appraisal sheets received from teachers, 33 teachers "enjoyed presenting the game," and two did not; 97 per cent of the answers were positive.

ITEM	TOTAL RESPONSES	# POSITIVE RESPONSES	# NEGATIVE RESPONSES	% POSITIVE
3.	35	33	2	97%

Criterion Measure "C": "Student's Appraisal of a Specific Simulation" (See Addendum G): The blue forms reported each student's own statement of his reaction to a specific simulation. For example, responses to Item #3 on this form, "Did you enjoy playing the game?", for "PEER PRESSURE" indicate that 149 players answered this item; of these, 112 said, "Yes," nine said, "Maybe," and 24 said, "No." Therefore, 75 per cent of the students for whom evaluation data was received "enjoyed" the simulation.

ITEM	TOTAL RESPONSES	YES	MAYBE	NO	% YES	% MAYBE
3.	149	112	9	24	75%	6.7%

4.2.3 Criterion #3: Did the simulation transmit information to the players?

Criterion Measure "D" is the difference between scores on the pre-tests and on the post-tests. Summary of data obtained is indicated in the following format:

NAME OF SIMULATION	# SETS OF BOTH TESTS RETURNED	AVERAGE PRE-TEST SCORES	AVERAGE POST-TEST SCORES	AVERAGE DIFFERENCE

Several problems developed in regard to the pre and post-tests:

- Fewer pre and post-tests than other evaluation data were available for evaluation. In many instances, pre and post-tests taken by each student were not returned. In other cases, only a pre-test, or only a post-test, was returned; these single returns were useless in evaluation.

- Pre and post-tests for the first simulations produced contained some negative questions which were to be answered "Yes" or "No." These were very confusing to most students and caused many erroneous answers.

- Although the negative questions were immediately recognized as contaminating factors, the subsequent simulation tests were already at the printer or in the mail and could not be corrected before the simulations were distributed.

- Some pre and post-tests were too easy for some students (especially in continuation high schools) so that all questions on the pre-test were answered correctly, thereby leaving no room for improvement.

- Some questions on post-tests were worded in such a way as to be more difficult for some students than were the comparable questions on the pre-test. In these instances, it was impossible to determine whether players were confused by the simulations or by the tests, or were guessing on both tests.

- Pre and post-test scores were therefore contaminated and did not produce significant results. This is unfortunate in view of the continuing controversy among simulations specialists regarding the efficacy of simulations in transmitting information.

4.3 Evaluation data summarized in the following tables clearly supports the project objectives of designing educational simulations to "provide workable strategies for the education of young people with characteristics similar to those of drug dependent minors."

Of the three specific areas of assessment of the effectiveness of these simulations described in Section 2.6, the first two criteria were met.

Criterion #1: Were the students attentive to the simulation to the extent of meeting the learner objectives of each simulation?

Criterion #2: Were the simulations accepted by the teachers as a useful tool?

The third area of assessment,

Criterion #3: Did the simulation transmit information to the players?

the results were not significant, and were grossly contaminated by the factors described in Section 4.2.3.

SUMMARY OF EVALUATION DATA

PEER PRESSURE

CRITERION MEASURE "A" TEACHER'S APPRAISAL OF EACH PLAYER'S PERFORMANCE

ITEM	NUMBER OF TOTAL RESPONSES	NUMBER OF POSITIVE RESPONSES	NUMBER OF NEGATIVE RESPONSES	% POSITIVE
3.	145	104	41	71.7
4.	140	118	22	84.2
5.	160	145	15	90.6
6.	161	143	18	88.8
7.	150	131	19	87.3
8.	135	90	45	66.6
9.	147	124	23	84.4
10.	149	129	20	86.6

CRITERION MEASURE "B" TEACHER'S APPRAISAL OF A SPECIFIC SIMULATION

ITEM	NUMBER OF TOTAL RESPONSES	NUMBER OF POSITIVE RESPONSES	NUMBER OF NEGATIVE RESPONSES	% POSITIVE
3.	35	33	2	94.3
4.	35	32	3	91.4
5.	35	34	1	97.1
6.	34	32	2	94.1
7.	35	24	11	68.6
8.	28	14	14	50.0

CRITERION MEASURE "C" STUDENT'S APPRAISAL OF A SPECIFIC SIMULATION

ITEM	NUMBER OF TOTAL RESPONSES	YES	MAYBE	NO	% YES	% MAYBE
3.	105	84	4	17	80.0	3.8
4.	106	53	32	21	50.0	30.2
5.	105	75	17	13	71.4	16.2
6.	105	27	14	31	25.7	13.3
7.	104	88	8	8	84.6	7.7
8.	53	30	3	20	56.6	5.7

SUMMARY OF EVALUATION DATA

LOOKING FOR & KEEPING A JOB

CRITERION MEASURE "A" TEACHER'S APPRAISAL OF EACH PLAYER'S PERFORMANCE

ITEM	NUMBER OF TOTAL RESPONSES	NUMBER OF POSITIVE RESPONSES	NUMBER OF NEGATIVE RESPONSES	% POSITIVE
3.	64	34	30	53.1
4.	64	58	6	90.6
5.	64	59	5	92.2
6.	65	52	13	80.0
7.	64	55	9	85.9
8.	64	47	17	73.4
9.	58	54	4	93.1
10.	58	52	6	89.7

CRITERION MEASURE "B" TEACHER'S APPRAISAL OF A SPECIFIC SIMULATION

ITEM	NUMBER OF TOTAL RESPONSES	NUMBER OF POSITIVE RESPONSES	NUMBER OF NEGATIVE RESPONSES	% POSITIVE
3.	11	9	2	81.8
4.	11	11	0	100.0
5.	11	8	3	72.7
6.	11	10	1	90.9
7.	11	7	4	63.6
8.	10	2	8	20.0

CRITERION MEASURE "C" STUDENT'S APPRAISAL OF A SPECIFIC SIMULATION

ITEM	NUMBER OF TOTAL RESPONSES	YES	MAYBE	NO	% YES	% MAYBE
3.	56	37	8	11	66.1	14.3
4.	58	23	19	14	39.7	32.8
5.	56	27	15	14	48.2	26.8
6.	56	43	7	6	76.8	12.5
7.	55	41	12	2	74.5	21.8
8.	32	18	2	12	56.2	6.2

SUMMARY OF EVALUATION DATA

BIGFOOT

CRITERION MEASURE "A" TEACHER'S APPRAISAL OF EACH PLAYER'S PERFORMANCE

ITEM	NUMBER OF TOTAL RESPONSES	NUMBER OF POSITIVE RESPONSES	NUMBER OF NEGATIVE RESPONSES	% POSITIVE
3.	28	11	17	39.3
4.	28	19	9	67.9
5.	27	23	4	85.8
6.	28	23	5	82.1
7.	28	20	8	71.4
8.	22	13	9	59.1
9.	28	23	5	82.1
10.	28	23	5	82.1

CRITERION MEASURE "B" TEACHER'S APPRAISAL OF A SPECIFIC SIMULATION

ITEM	NUMBER OF TOTAL RESPONSES	NUMBER OF POSITIVE RESPONSES	NUMBER OF NEGATIVE RESPONSES	% POSITIVE
3.	4	3	1	75.0
4.	4	4	0	100.0
5.	4	4	0	100.0
6.	4	4	0	100.0
7.	4	3	1	75.0
8.	4	3	1	75.0

CRITERION MEASURE "C" STUDENT'S APPRAISAL OF A SPECIFIC SIMULATION

ITEM	NUMBER OF TOTAL RESPONSES	YES	MAYBE	NO	% YES	% MAYBE
3.	42	27	11	5	64.3	26.2
4.	44	23	12	9	52.3	27.3
5.	42	26	9	7	61.9	21.4
6.	43	10	9	24	23.3	20.9
7.	42	28	7	7	66.7	16.7
8.	24	12	1	11	50.0	4.2

SUMMARY OF EVALUATION DATA

DRIVING

CRITERION MEASURE "A" TEACHER'S APPRAISAL OF EACH PLAYER'S PERFORMANCE

ITEM	NUMBER OF TOTAL RESPONSES	NUMBER OF POSITIVE RESPONSES	NUMBER OF NEGATIVE RESPONSES	% POSITIVE
3.	37	13	24	35.1
4.	48	23	25	47.9
5.	43	29	14	67.4
6.	48	35	13	72.9
7.	49	24	25	49.0
8.	51	29	22	56.9
9.	48	47	1	97.9
10.	48	47	1	97.9

CRITERION MEASURE "B" TEACHER'S APPRAISAL OF A SPECIFIC SIMULATION

ITEM	NUMBER OF TOTAL RESPONSES	NUMBER OF POSITIVE RESPONSES	NUMBER OF NEGATIVE RESPONSES	% POSITIVE
3.	6	4	2	66.7
4.	5	5	0	100.0
5.	5	4	1	80.0
6.	5	4	1	80.0
7.	4	3	1	75.0
8.	6	1	5	16.7

CRITERION MEASURE "C" STUDENT'S APPRAISAL OF A SPECIFIC SIMULATION

ITEM	NUMBER OF TOTAL RESPONSES	YES	MAYBE	NO	% YES	% MAYBE
3.	44	13	11	20	29.5	25.0
4.	45	12	11	22	26.7	24.4
5.	44	8	10	26	18.2	22.7
6.	45	28	6	11	62.2	13.3
7.	44	14	12	18	31.8	27.3
8.	36	5	0	31	13.9	-

SUMMARY OF EVALUATION DATA

FINDING A PLACE TO LIVE

CRITERION MEASURE "A" TEACHER'S APPRAISAL OF EACH PLAYER'S PERFORMANCE

ITEM	NUMBER OF TOTAL RESPONSES	NUMBER OF POSITIVE RESPONSES	NUMBER OF NEGATIVE RESPONSES	% POSITIVE
3.	20	11	9	55.0
4.	34	24	10	70.0
5.	34	27	7	76.4
6.	34	32	2	94.1
7.	32	21	11	65.6
8.	32	23	9	71.8
9.	34	34	0	100.0
10.	34	29	5	85.2

CRITERION MEASURE "B" TEACHER'S APPRAISAL OF A SPECIFIC SIMULATION

ITEM	NUMBER OF TOTAL RESPONSES	NUMBER OF POSITIVE RESPONSES	NUMBER OF NEGATIVE RESPONSES	% POSITIVE
3.	4	3	1	75.0
4.	4	4	0	100.0
5.	4	4	0	100.0
6.	4	4	0	100.0
7.	4	3	1	75.0
8.	3	2	1	66.6

CRITERION MEASURE "C" STUDENT'S APPRAISAL OF A SPECIFIC SIMULATION

ITEM	NUMBER OF TOTAL RESPONSES	YES	MAYBE	NO	% YES	% MAYBE
3.	30	14	9	7	46.6	30.0
4.	30	9	5	16	30.0	16.6
5.	29	13	9	7	44.3	31.0
6.	29	15	6	8	51.7	20.6
7.	29	17	8	4	58.5	27.5
8.	16	6	0	10	37.5	-

SUMMARY OF EVALUATION DATA

FRACTURED FRACTIONS

CRITERION MEASURE "A" TEACHER'S APPRAISAL OF EACH PLAYER'S PERFORMANCE

ITEM	NUMBER OF TOTAL RESPONSES	NUMBER OF POSITIVE RESPONSES	NUMBER OF NEGATIVE RESPONSES	% POSITIVE
3.	19	11	8	57.9
4.	18	12	6	66.7
5.	19	18	1	94.7
6.	19	14	5	73.7
7.	19	12	7	63.2
8.	19	10	9	52.6
9.	19	19	0	100.0
10.	19	19	0	100.0

CRITERION MEASURE "B" TEACHER'S APPRAISAL OF A SPECIFIC SIMULATION

ITEM	NUMBER OF TOTAL RESPONSES	NUMBER OF POSITIVE RESPONSES	NUMBER OF NEGATIVE RESPONSES	% POSITIVE
3.	4	3	1	75.0
4.	4	3	1	75.0
5.	4	3	1	75.0
6.	4	4	0	100.0
7.	4	4	0	100.0
8.	3	1	2	33.3

CRITERION MEASURE "C" STUDENT'S APPRAISAL OF A SPECIFIC SIMULATION

ITEM	NUMBER OF TOTAL RESPONSES	YES	MAYBE	NO	% YES	% MAYBE
3.	48	21	13	14	43.7	27.0
4.	48	28	9	11	58.3	19.0
5.	47	22	13	12	46.8	27.7
6.	48	27	11	10	56.3	22.9
7.	48	31	10	7	64.6	20.9
8.	21	9	0	12	42.9	-

SUMMARY OF EVALUATION DATA

STROKES

CRITERION MEASURE "A" TEACHER'S APPRAISAL OF EACH PLAYER'S PERFORMANCE

ITEM	NUMBER OF TOTAL RESPONSES	NUMBER OF POSITIVE RESPONSES	NUMBER OF NEGATIVE RESPONSES	% POSITIVE
3.	40	36	4	90.0
4.	40	34	6	85.0
5.	40	35	5	87.5
6.	40	38	2	95.0
7.	39	36	3	92.0
8.	39	35	4	89.4
9.	40	37	3	92.0
10.	Does Not Apply	Does Not Apply	Does Not Apply	-

CRITERION MEASURE "B" TEACHER'S APPRAISAL OF A SPECIFIC SIMULATION

ITEM	NUMBER OF TOTAL RESPONSES	NUMBER OF POSITIVE RESPONSES	NUMBER OF NEGATIVE RESPONSES	% POSITIVE
3.	8	7	1	87.5
4.	8	7	1	87.5
5.	8	8	0	100.0
6.	8	5	3	62.5
7.	8	7	1	87.5
8.	6	4	2	66.7

CRITERION MEASURE "C" STUDENT'S APPRAISAL OF A SPECIFIC SIMULATION

ITEM	NUMBER OF TOTAL RESPONSES	YES	MAYBE	NO	% YES	% MAYBE
3.	56	39	8	8	69.6	14.3
4.	56	24	12	14	42.8	21.4
5.	54	30	17	7	55.5	31.4
6.	54	22	15	14	40.7	24.0
7.	56	36	13	7	64.3	23.2
8.	22	19	2	5	86.3	9.0

SUMMARY OF EVALUATION DATA

BIKE RACING

CRITERION MEASURE "A" TEACHER'S APPRAISAL OF EACH PLAYER'S PERFORMANCE

ITEM	NUMBER OF TOTAL RESPONSES	NUMBER OF POSITIVE RESPONSES	NUMBER OF NEGATIVE RESPONSES	% POSITIVE
3.	36	23	13	63.9
4.	39	29	10	71.8
5.	41	34	7	82.9
6.	36	33	3	91.7
7.	40	34	6	85.0
8.	39	26	13	66.7
9.	40	31	9	77.5
10.	38	32	6	84.2

CRITERION MEASURE "B" TEACHER'S APPRAISAL OF A SPECIFIC SIMULATION

ITEM	NUMBER OF TOTAL RESPONSES	NUMBER OF POSITIVE RESPONSES	NUMBER OF NEGATIVE RESPONSES	% POSITIVE
3.	7	6	1	85.7
4.	7	7	0	100.0
5.	7	7	0	100.0
6.	7	6	1	85.7
7.	7	6	1	85.7
8.	5	3	2	60.0

CRITERION MEASURE "C" STUDENT'S APPRAISAL OF A SPECIFIC SIMULATION

ITEM	NUMBER OF TOTAL RESPONSES	YES	MAYBE	NO	% YES	% MAYBE
3.	56	32	14	10	57.1	25.0
4.	56	21	14	21	37.5	25.0
5.	56	32	12	12	57.1	21.4
6.	56	22	14	20	39.2	25.0
7.	56	45	6	5	80.4	10.7
8.	30	17	2	11	56.7	6.7

SUMMARY OF EVALUATION DATA

CONSEQUENCES

CRITERION MEASURE "A" TEACHER'S APPRAISAL OF EACH PLAYER'S PERFORMANCE

ITEM	NUMBER OF TOTAL RESPONSES	NUMBER OF POSITIVE RESPONSES	NUMBER OF NEGATIVE RESPONSES	% POSITIVE
3.	18	15	3	92.3
4.	20	16	4	80.0
5.	24	24	0	100.0
6.	22	20	2	90.9
7.	22	20	2	90.9
8.	20	14	6	70.0
9.	22	22	0	100.0
10.	Does Not Apply	Does Not Apply	Does Not Apply	-

CRITERION MEASURE "B" TEACHER'S APPRAISAL OF A SPECIFIC SIMULATION

ITEM	NUMBER OF TOTAL RESPONSES	NUMBER OF POSITIVE RESPONSES	NUMBER OF NEGATIVE RESPONSES	% POSITIVE
3.	5	4	1	80.0
4.	5	4	1	80.0
5.	5	4	1	80.0
6.	5	2	3	40.0
7.	5	5	0	100.0
8.	4	2	2	50.0

CRITERION MEASURE "C" STUDENT'S APPRAISAL OF A SPECIFIC SIMULATION

ITEM	NUMBER OF TOTAL RESPONSES	YES	MAYBE	NO	% YES	% MAYBE
3.	24	16	5	3	66.7	20.8
4.	24	6	6	12	25.0	25.0
5.	24	9	13	2	37.5	54.2
6.	24	10	3	11	41.7	12.5
7.	24	16	6	2	66.7	25.0
8.	13	6	1	6	46.2	7.7

SUMMARY OF EVALUATION DATA

WHAT TO DO? WHAT TO DO??

CRITERION MEASURE "A" TEACHER'S APPRAISAL OF EACH PLAYER'S PERFORMANCE

ITEM	NUMBER OF TOTAL RESPONSES	NUMBER OF POSITIVE RESPONSES	NUMBER OF NEGATIVE RESPONSES	% POSITIVE
3.	24	17	7	70.8
4.	24	18	6	75.0
5.	25	16	9	64.0
6.	25	20	5	80.0
7.	25	19	6	76.0
8.	25	17	8	64.0
9.	25	21	4	84.0
10.	25	24	1	96.0

CRITERION MEASURE "B" TEACHER'S APPRAISAL OF A SPECIFIC SIMULATION

ITEM	NUMBER OF TOTAL RESPONSES	NUMBER OF POSITIVE RESPONSES	NUMBER OF NEGATIVE RESPONSES	% POSITIVE
3.	4	4	0	100.0
4.	4	4	0	100.0
5.	4	4	0	100.0
6.	3	2	1	66.7
7.	4	4	0	100.0
8.	5	5	0	100.0

CRITERION MEASURE "C" STUDENT'S APPRAISAL OF A SPECIFIC SIMULATION

ITEM	NUMBER OF TOTAL RESPONSES	YES	MAYBE	NO	% YES	% MAYBE
3.	27	24	2	1	88.8	7.4
4.	27	11	10	6	40.7	37.9
5.	27	16	8	3	59.3	33.7
6.	27	21	7	9	77.7	25.9
7.	27	13	11	3	48.1	40.7
8.	11	6	0	5	54.5	-

SUMMARY OF EVALUATION DATA

BEST BUY

CRITERION MEASURE "A" TEACHER'S APPRAISAL OF EACH PLAYER'S PERFORMANCE

ITEM	NUMBER OF TOTAL RESPONSES	NUMBER OF POSITIVE RESPONSES	NUMBER OF NEGATIVE RESPONSES	% POSITIVE
3.	22	14	8	63.6
4.	22	19	3	86.4
5.	22	20	2	90.9
6.	24	23	1	95.8
7.	24	24	0	100.0
8.	24	16	8	66.7
9.	24	24	0	100.0
10.	20	20	0	100.0

CRITERION MEASURE "B" TEACHER'S APPRAISAL OF A SPECIFIC SIMULATION

ITEM	NUMBER OF TOTAL RESPONSES	NUMBER OF POSITIVE RESPONSES	NUMBER OF NEGATIVE RESPONSES	% POSITIVE
3.	4	2	2	50.0
4.	4	3	1	75.0
5.	4	3	1	75.0
6.	4	3	1	75.0
7.	4	2	2	50.0
8.	3	2	1	66.7

CRITERION MEASURE "C" STUDENT'S APPRAISAL OF A SPECIFIC SIMULATION

ITEM	NUMBER OF TOTAL RESPONSES	YES	MAYBE	NO	% YES	% MAYBE
3.	23	17	3	3	73.9	13.0
4.	23	8	6	9	34.8	26.1
5.	23	12	6	5	52.2	26.1
6.	22	12	5	5	54.5	22.7
7.	23	19	4	0	82.6	17.4
8.	11	5	0	6	45.5	-

SUMMARY OF EVALUATION DATA

CANDLE SHOP

CRITERION MEASURE "A" TEACHER'S APPRAISAL OF EACH PLAYER'S PERFORMANCE

ITEM	NUMBER OF TOTAL RESPONSES	NUMBER OF POSITIVE RESPONSES	NUMBER OF NEGATIVE RESPONSES	% POSITIVE
3.	15	9	6	60.0
4.	15	12	3	80.0
5.	15	15	0	100.0
6.	15	13	2	86.7
7.	15	13	2	86.7
8.	15	11	4	73.3
9.	15	15	0	100.0
10.	15	15	0	100.0

CRITERION MEASURE "B" TEACHER'S APPRAISAL OF A SPECIFIC SIMULATION

ITEM	NUMBER OF TOTAL RESPONSES	NUMBER OF POSITIVE RESPONSES	NUMBER OF NEGATIVE RESPONSES	% POSITIVE
3.	3	1	2	33.3
4.	3	3	0	100.0
5.	3	2	1	66.7
6.	3	2	1	66.7
7.	3	3	0	100.0
8.	1	0	1	0

CRITERION MEASURE "C" STUDENT'S APPRAISAL OF A SPECIFIC SIMULATION

ITEM	NUMBER OF TOTAL RESPONSES	YES	MAYBE	NO	% YES	% MAYBE
3.	15	10	4	1	66.7	26.7
4.	15	7	1	7	46.7	6.7
5.	15	7	6	2	46.7	40.0
6.	15	10	1	4	66.7	6.7
7.	15	11	3	1	73.3	20.0
8.	12	4	1	7	33.3	8.3

SUMMARY OF EVALUATION DATA

CRITERION MEASURE "D" PRE- AND POST-TEST SCORES

NAME OF SIMULATION	# SETS OF BOTH TESTS RETURNED	AVERAGE PRE-TEST SCORES	AVERAGE POST-TEST SCORES	AVERAGE DIFFERENCE
PEER PRESSURE	121	7	6	-1
LOOKING FOR AND KEEPING A JOB	42	8	8	0
BIGFOOT	53	7	8	+1
DRIVING	33	8	9	+1
FINDING A PLACE TO LIVE	28	9	9	0
FRACTURED FRACTIONS	24	6	6	0
STROKES	58	9	8	-1
BIKE RACING	31	7	7	0
CONSEQUENCES	23	9	8	-1
WHAT TO DO? WHAT TO DO??	24	9	8	-1
BEST BUY	23	8	9	+1
CANDLE SHOP	16	9	9	0

4.4 Conclusions

The positive results derived from the evaluation data and summarized in Section 4.3 make it evident that the major project objective was met. Teachers' comments in many cases dramatically supported the positive assessment of the simulations on the basis of Criteria #1 and #2. A few of them are quoted below.

About the unrevised version of "PEER PRESSURE," one teacher wrote: "The reactions on the students' part were sufficient to show that the game had worked. Furthermore, I am recommending to the counselors in the dorm that they use this game with the caseload. It will serve to occupy their time and to give the counselors good insight into the boys' personality."

Responding to "LOOKING FOR AND KEEPING A JOB," before revision into "GET A JOB," a teacher wrote, "There is much needed information supplied by playing the game. The interview part was especially enjoyed by the players. I think the material covered is so valuable and up to date that I plan on using it later with the class... ."

Regarding Simulation (C), "BIGFOOT," before revision: "Our class response to "BIGFOOT" was everything you could hope for. It motivated my slow learners as well as provided competition to those with high ability. Students were anxious to play again and to play similar games. (Please send more.)"

In one case, on the other hand, a teacher stated that the lively interaction that took place during the playing of "PEER PRESSURE" was "behavior we don't want." In such a case, a teacher would probably not be comfortable using any of the successful inter-

action simulations on the market today. Another teacher felt that "PEER PRESSURE" should be played in smaller groups than those originally suggested by the project, i.e. three or six players rather than nine or twelve. A teacher in a regular junior high school found it possible to have as many as twenty-four students playing "PEER PRESSURE" simultaneously in groups of three students to each gameboard. Obviously, the use of a simulation depends upon the characteristics of the class and the interests of the teacher.

In examining returned appraisal sheets, it soon became apparent that within the target population the simulations varied in their appeal to students and teachers at different levels. Students at various schools also varied in their ability to master the mechanics and strategies of the simulations. By the termination of the evaluation period, it was possible to make specific recommendations for use in various schools and grade levels. (See Section 4.5 for this information.)

Based on Criterion #3, the findings are unclear, due to various contaminating factors. These factors are described in detail in Section 4.2.3.

In the opinion of the project coordinator, the question of whether or not a student player "learns" or if "information is transmitted" by playing a simulation depends in part on one's definition of learning. Does it refer to a student's ability to recite facts, his affective reaction to an experience, or his ability to evaluate an experience?

Before this project began, some studies at Johns Hopkins University and Columbia University had shown that facts are more easily learned by college students in the standard lecture

and textbook manner than by simulation, but that experiencing and empathizing occur more readily in a simulation.

The educational simulations project produced some simulations that provided more opportunity for experiencing feelings and reactions to social situations than for transmittal of measurable facts. Through "PEER PRESSURE," "STROKES," and "CONSEQUENCES," it is possible for teachers to assist student players in examining and evaluating their own affective experiences in situations which apply to their own lives.

4.5 Recommendations for Use of the Simulations

The twelve educational simulations which were designed and produced by the Santa Cruz County Office of Education under the project "NEW APPROACHES TO BEHAVIORALLY EXCEPTIONAL YOUTH" are highly recommended to teachers who are seeking motivating educational tools for teaching any of the following students:

- California Youth Authority high school students who have academic deficiencies of two or more grade levels.
- County ranch school students age fourteen to sixteen.
- Students of junior high school age in classes for drug dependent minors.
- Students in continuation high schools or comprehensive high schools who have math and reading skill deficiencies of two or more grade levels.
- Students who are in special classes within a comprehensive high school.
- Students in regular junior high schools.

"PEER PRESSURE," "STROKES," and "CONSEQUENCES" are recommended specifically to teachers or living group supervisors with an interest in diagnosis and counseling of student problems. "GET A JOB," as revised, is recommended for occupational orientation; "BIGFOOT," "BIKE RACING," "BEST BUY," and "CANDLE SHOP" are recommended to math teachers of seventh, eighth or ninth grade level. Each one of these can be easily modified for a higher level of math. "FINDING A PLACE TO LIVE" and "WHAT TO DO? WHAT TO DO??" are recommended to teachers of Life Skills, and "DRIVING" is recommended for use before or concurrently with Driver Education.

The staff of the Santa Cruz County project "NEW APPROACHES TO BEHAVIORALLY EXCEPTIONAL YOUTH" recommends the use of educational simulations to all teachers interested in a new motivating educational tool.

OFFICE OF EDUCATION
RICHARD R. FICKEL, SUPERINTENDENT
SANTA CRUZ, CA. 95060

QUESTIONNAIRE

Please complete and return before September 5, 1972 to:

PEG SMITH
Sunshine School
441 Rio del Mar Blvd.
Aptos, Ca. 95003

1. What is the name, address, and phone number of your facility:

   Name _____ Phone No. _____

   Address _____ _____

2. How many teachers in your program will participate? _____

3. How many classes will be involved? _____

4. What is the average number of students in each participating class? _____

5. What are the names of two participating staff members who will be responsible for liaison with our office?

   _____ _____
   Name Position

   _____ _____
   Name Position

6. To whom shall we direct all deliveries of simulations and correspondence regarding the project?

   _____ _____
   Name Address

7. Will you be interested in sending one or more of your participating staff members to an inservice workshop and demonstration of the use of educational simulations to be held in Santa Cruz in October or November, 1972?

8. Rate on a three point scale the appropriateness of the following topics for games to be used in your instructional program

ADDEN

Sunshine School
441 Rio del Mar Blvd.
Aptos, Ca. 95003

1. What is the name, address, and phone number of your facility:

   Name _____ Phone No. _____

   Address _____ _____

2. How many teachers in your program will participate? _____

3. How many classes will be involved? _____

4. What is the average number of students in each participating class? _____

5. What are the names of two participating staff members who will be responsible for liaison with our office?

   _____ _____
   Name Position

   _____ _____
   Name Position

6. To whom shall we direct all deliveries of simulations and correspondence regarding the project?

   _____ _____
   Name Address

7. Will you be interested in sending one or more of your participating staff members to an inservice workshop and demonstration of the use of educational simulations to be held in Santa Cruz in October or November, 1972?

8. Rate on a three point scale the appropriateness of the following topics for games to be used in your instructional program.

   Also rank the game topics that you consider appropriate in numerical order from "1" (most appropriate) to "50" (least appropriate).

PS/shp
8/24/72

(see following pages)

ADDENDUM A

SIMULATION GAME TOPICS - Please rate and rank in 4 columns

Life Skill Game Topics	Not Approp.	Appro-priate	Most Approp.	Rank 1-50
1. Getting a high school diploma.				
2. Balancing the budget.				
3. Renting a pad.				
4. Getting a job.				
5. Keeping a job.				
6. Getting off probation.				
7. Juvenile Rights: What to do if busted, etc.				
8. Getting your head together.				
9. Driver responsibility -- the cool driver.				
10. Vehicle Code,				
11. Car Maintenance.				
12. Drug use and abuse.				
13. Peer pressure and how to handle it.				
14. Other ways out - alternative means of escape from painful situations.				
15. Ego building - self worth.				
16. Return to family - getting along.				
17. Foster home - getting along.				
18. V.D. prevention and care.				
19. Community resources to make life easier.				
20. "Go to Board" - reception center.				
21. "72 household" - Juvenile Hall.				

3. Renting a pad.					
4. Getting a job.					
5. Keeping a job.					
6. Getting off probation.					
7. Juvenile Rights: What to do if busted, etc.					
8. Getting your head together.					
9. Driver responsibility -- the cool driver.					
10. Vehicle Code,					
11. Car Maintenance.					
12. Drug use and abuse.					
13. Peer pressure and how to handle it.					
14. Other ways out - alternative means of escape from painful situations.					
15. Ego building - self worth.					
16. Return to family - getting along.					
17. Foster home - getting along.					
18. V.D. prevention and care.					
19. Community resources to make life easier.					
20. "Go to Board" - reception center.					
21. "72 household" - Juvenile Hall.					
22. The legal game.					
23. "Beating the Man".					
24. Buying wisely - resisting the advertisements.					

	Not Approp.	Appro-priate	Most Approp.	Rank 1-50
Vocational Skill Game Topics				
25. Sales Clerk.				
26. Taxi Driver.				
27. Inspector - in factory.				
28. Free-lance Photographer.				
29. Mail Carrier or Postal Clerk.				
30. Rock Group Booker.				
31. Telephone Lineman.				
32. Forester.				
33. Waiter or Waitress.				
34. Carnival Roustabout.				
35. Dishwasher or Busboy.				
36. Carpenter.				
Recreational Skills				
37. Camping.				
38. Down River on a Raft.				
39. Planting a Garden.				
40. Touch Football.				
41. Sailing.				
42. "Autocross" - auto racing.				
43. Canadian Bike Ride.				
44. Throwing a Party.				
45. Surfing.				

27. Inspector - in factory.
28. Free-lance Photographer.
29. Mail Carrier or Postal Clerk.
30. Rock Group Booker.
31. Telephone Lineman.
32. Forester.
33. Waiter or Waitress.
34. Carnival Roustabout.
35. Dishwasher or Busboy.
36. Carpenter.

Recreational Skills

37. Camping.
38. Down River on a Raft.
39. Planting a Garden.
40. Touch Football.
41. Sailing.
42. "Autocross" - auto racing.
43. Canadian Bike Ride.
44. Throwing a Party.
45. Surfing.
46. "Nothing to Do" in the country.
47. "Nothing to Do" in the city.
48. Flat Broke - time but no money.
49. Crafts - making things for sale or gifts.
50. "Hitching" - travel and behavior on road.

AUDENUUM 8 (cont'd)

SIMULATION GAME TOPICS

Rated most Appropriate by Respondents	Number of Topic on Questionaire	Topic
7 out of 8	13	Peer Pressure
7 out of 8	4	Getting a Job
7 out of 8	15	Ego Building & Self Worth
6 out of 8	3	Renting a Pad
5 out of 7	12	Drug Use & Abuse
5 out of 7	16	Return to Family
5 out of 7	48	Flat Broke - Time but No Money
5 out of 7	8	Getting your Head Together
5 out of 7	9	Driver Responsibility
5 out of 8	18	V. D. Prevention and Care
4 out of 7	14	Other Ways Out - Alternatives
4 out of 7	33	Waiter or Waitress
4 out of 7	35	Dishwasher or Busboy
4 out of 7	36	Carpenter
3 out of 7	6	Getting off Probation or Parole
3 out of 7	46	Nothing to Do in the Country
3 out of 7	47	Nothing to Do in the City
3 out of 7	2	Balancing the Budget
3 out of 7	20	Go to Board
3 out of 7	32	Forester
3 out of 7	25	Sales Clerk
3 out of 7	26	Taxi Driver

PS/kf
October 1972

ADDENDUM C

ADDENDUM D

PARTICIPANTS IN SIMULATIONS EVALUATION

FACILITY	SUPERVISOR	TEACHERS
STATE SCHOOLS & FACILITIES:		
Ben Lomond State Youth Forestry Camp Santa Cruz, CA	Mr. White	Phyllis Ramsthaller
O.H. Close School, C.Y.A. Stockton, CA	Ernest Bodt	Marvin Crews Darwin Curry D. Davis & H. Simmons G. Welch & A. Tsukimura Barbara Whiteseal
Karl Holton School, C.Y.A. Stockton, CA	Gordon Spencer	Louis Woods
Northern Reception Center, C.Y.A. Sacramento, CA	Carl Andre	Andy Hau Jim Flood
Ventura School, C.Y.A. Camarillo, CA	D. Arnold	Margarett Barnett John Van Goninger Marie Baker
COUNTY SCHOOLS & FACILITIES:		
Glenwood Boys Ranch La Honda, CA	Doug Booth	Olga Chambers

PARTICIPANTS IN SIMULATIONS EVALUATION (Cont'd)

FACILITY	SUPERVISOR	TEACHERS
Los Pinos High School Elsinore, CA	Leo F. Hannon	John Acuna Mike Kilborn
Santa Cruz County Juvenile Hall Santa Cruz, CA	Bob Hartman	Bob Hartman Colette Von Deuring
Sunshine School for Drug Dependent Minors Aptos, CA	Jay Lang	Jay Lang Phyllis Silverman
DISTRICT SCHOOLS:		
Abraxas High School Poway, CA		Pat Yavno Pat Petry Jenne Gray Rene Townsend
Coronado Continuation High School Coronado, CA	Maurice Shaw	Bob Concannon
Fallbrook Continuation School Fallbrook, CA		Ken Anderson
Grossmont Continuation School Santee, CA		E.A. Walker
Johnson Intermediate School Westminster, CA	Linda Harshbarger	Jules Unteidt
Loma Prieta High School Santa Cruz, CA	Charles Smith	Betty Nash

PARTICIPANTS IN SIMULATIONS EVALUATION (Cont'd)

FACILITY	SUPERVISOR	TEACHERS
Midway Junior Senior High School San Diego, CA		Bev Walter
San Lorenzo Valley Unified School District Drug Dependent Minor Program Ben Lomond, CA		Candy Love
Snyder High School San Diego, CA		Ross Warfel
Valley High School Escondido, CA		Donna Hutchinson

E.H.A. Project VI B #2701

TEACHER'S APPRAISAL OF EACH PLAYER'S PERFORMANCE

Directions:

This form is to be filled out by the teacher at the end of the two hours of play.

The teacher will appraise each player on all questions in one vertical column. Answer each question with (+) for yes, (-) for no, or (?) for partly or unknown. If only one student played the game, fill out only one column, A; if four students played, fill out A, B, C, D.

The teacher will fill out only one of these forms for each simulation presented.

1. NAME OF SIMULATION _____

2. NUMBER OF PLAYERS _____

		A	B	C	D	E	F	G	H
3.	Did he attend to the game more than he usually attends to traditional teaching methods?								
4.	Did he attend to the game all period?								
5.	Did he cooperate with other players?								
6.	Did he appear to understand the directions?								
7.	Did he follow directions?								
*8.	Did he play the game without showing frustration?								
9.	Did he read the game cards alone?								
10.	Did he compute math problems?								

Other comments you would like to make:
Please be frank.

_____

_____

Directions:

This form is to be filled out by the teacher at the end of the two hours of play.
The teacher will appraise each player on all questions in one vertical column. Answer each question with (+) for yes, (-) for no, or (?) for partly or unknown. If only one student played the game, fill out only one column, A; if four students played, fill out A, B, C, D.
The teacher will fill out only <u>one</u> of these forms for each simulation presented.

1. NAME OF SIMULATION _____

2. NUMBER OF PLAYERS _____

	A	B	C	D	E	F	G	H
3. Did he attend to the game more than he usually attends to traditional teaching methods?								
4. Did he attend to the game all period?								
5. Did he cooperate with other players?								
6. Did he appear to understand the directions?								
7. Did he follow directions?								
*8. Did he play the game without showing frustration?								
9. Did he read the game cards alone?								
10. Did he compute math problems?								

Other comments you would like to make:
Please be frank.

_____

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*Revised

/nb
Dec. 1972

E.H.A. Project VI B #2701

TEACHER'S APPRAISAL OF A SPECIFIC SIMULATION

Directions:

The teacher should fill out <u>one</u> of these for each simulation presented.

1. NAME OF SIMULATION _____
2. NUMBER OF PLAYERS _____
3. Did you enjoy presenting the game? _____
4. Do you think it teaches anything? _____
5. Do you plan to make this simulation available to your students to play informally? _____
6. Is the information taught appropriate to the needs of your students? _____

*7. Were you able to prepare for this game and record results during your regular class time and/or prep. time? _____

8. Other comments you would like to make: Please be frank.

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Directions:

The teacher should fill out <u>one</u> of these for each simulation presented.

1. NAME OF SIMULATION _____

2. NUMBER OF PLAYERS _____

3. Did you enjoy presenting the game? _____

4. Do you think it teaches anything? _____

5. Do you plan to make this simulation available to your students to play informally? _____

6. Is the information taught appropriate to the needs of your students? _____

*7. Were you able to prepare for this game and record results during your regular class time and/or prep. time? _____

8. Other comments you would like to make:
Please be frank.

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*Revised

/nb
Dec. 1972

E.H.A. Project VI B #2701

STUDENT'S APPRAISAL OF A SPECIFIC SIMULATION

Directions:
Each student should fill out one of these sheets for each simulation.

1. NAME OF SIMULATION _____

2. NUMBER OF PLAYERS _____

	No	Maybe	Yes
3. Did you enjoy playing the game?			
4. Do you think you learned anything?			
5. Would you play it again?			
6. Is the game about things that are important to you?			
7. Would you like to try another game?			

8. Other comments you would like to make:
Please be frank.

_____

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ADD

Directions:
Each student should fill out one of these sheets for each simulation.

1. NAME OF SIMULATION _____

2. NUMBER OF PLAYERS _____

	No	Maybe	Yes
3. Did you enjoy playing the game?			
4. Do you think you learned anything?			
5. Would you play it again?			
6. Is the game about things that are important to you?			
7. Would you like to try another game?			

8. Other comments you would like to make:
Please be frank.

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PS/kf
Sept. 1972

COUNTY OFFICE OF EDUCATION
RICHARD R. FICKEL, SUPERINTENDENT
SANTA CRUZ, CALIFORNIA

SIMULATIONS WORKSHOP
APRIL 13, 1973

ATTENDANCE

NAME	FACILITY	ADDRESS
1. Olga Chambers	Glenwood Boys Ranch	P.O. Box 38 La Honda, CA 94020
2. George Cheney	Live Oak School District	1916 Capitola Road Santa Cruz, CA 95060
3. Darwin Curry	O.H. Close School	7650 S. Newcastle Road Stockton, CA 95206
4. Gerry Davis	Live Oak School District	1916 Capitola Road Santa Cruz, CA 95060
5. Douglas Eidsmore	VORT Corporation-Designer	542 Fifth Avenue Santa Cruz, CA 95060
6. Gary Flynn	Santa Clara County Juvenile Court Schools - Campbell Day Care Center	1380 Olympia Avenue Campbell, CA
7. Linda Harshbarger	Johnson Intermediate School	13602 Edwards Street Westminster, CA 92683
8. Andy Hau	CYA Northern Reception Center	3001 Ramona Avenue Sacramento, CA 95826
9. Maurice Shaw	Coronado Continuation High School	555 D Avenue Coronado, CA 92118
10. Phyllis Silverman	Sunshine School	441 Rio Del Mar Boulevard Aptos, CA 95003
11. Hazel Smith	Live Oak School District	1916 Capitola Road

ADDEND

SIMULATIONS WORKSHOP
APRIL 13, 1973

ATTENDANCE

NAME	FACILITY	ADDRESS
1. Olga Chambers	Glenwood Boys Ranch	P.O. Box 38 La Honda, CA 94020
2. George Cheney	Live Oak School District	1916 Capitola Road Santa Cruz, CA 95060
3. Darwin Curry	O.H. Close School	7650 S. Newcastle Road Stockton, CA 95206
4. Gerry Davis	Live Oak School District	1916 Capitola Road Santa Cruz, CA 95060
5. Douglas Eidsmore	VORT Corporation-Designer	542 Fifth Avenue Santa Cruz, CA 95060
6. Gary Flynn	Santa Clara County Juvenile Court Schools - Campbell Day Care Center	1380 Olympia Avenue Campbell, CA
7. Linda Harshbarger	Johnson Intermediate School	13602 Edwards Street Westminster, CA 92683
8. Andy Hau	CYA Northern Reception Center	3001 Ramona Avenue Sacramento, CA 95826
9. Maurice Shaw	Coronado Continuation High School	555 D Avenue Coronado, CA 92118
10. Phyllis Silverman	Sunshine School	441 Rio Del Mar Boulevard Aptos, CA 95003
11. Hazel Smith	Live Oak School District	1916 Capitola Road Santa Cruz, CA 95060
12. Peg Smith	Sunshine School/ County Office of Education	441 Rio Del Mar Boulevard Aptos, CA 95003
13. Shirley Smith	Special Training Farm	11 Spring Valley Road Watsonville, CA 95076
14. Jules Unteidt	Johnson Intermediate School	13602 Edwards Street Westminster, CA 92683

ADDENDUM H

15. Colette Von Deuring	Santa Cruz County Juvenile Hall School	3650 Graham Hill Road Felton, CA
19. Louis Woods	Karl Holton School	7650 S. Newcastle Road Stockton, CA 95206
20. Marvin Ziegler	VORT Corporation	7037 Banff Springs Court San Jose, CA 95139

/nb
4/24/73

ADDENDUM H (cont'd)